TSMC-01-760

FLASH MEMORY CELL WITH HIGH PROGRAMMING EFFICIENCY BY COUPLING FROM FLOATING GATE TO SIDEWALL

DC This application is a DIV of 10/210,957 08/02/02 PAT 6,649,472

BACKGROUND OF THE INVENTION

(1) Field of the Invention

The invention relates to a flash memory device and, more particularly, to a method to form a flash memory device having sidewall coupling between the floating gate and source/drain plugs to improve programming efficiency.

(2) Description of the Prior Art

Flash memories are used in a large number of electronic applications. Flash memories can provide random access to stored data such as application programs. Flash memory cells can be written to and read from many times. In this way, flash memory is similar to static or dynamic RAM. However, as an additional advantage, flash memories can retain data during a loss of power supply. By comparison, RAM devices lose memory states if the power supply is removed.